

**REMARKS**

Claims 1, 3, 4, 6, 8, 10, 21 and 23-28 are presently in the application.

Applicants are pleased to note the Examiner's withdrawal of the rejections of the claims based upon U.S. Patent 5,609,832 of Mieville et al.

However, the Examiner has maintained the rejection of claims 1, 6, 8-10, 21 and 25-28 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 3,262,758 of James et al. and the rejection of claims 3, 4, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over James et al. in view of U.S. Patent 3,345,136 of Finnerman et al., for essentially the same reasons as set forth in the previous Office Action. In paragraph 4 at pages 6-10 of the Office Action, the Examiner sets forth her response to Applicants' arguments submitted on August 7, 2004. Essentially, it is the Examiner's position that the "surround" feature relied upon by Applicants is not recited in claim 1, and that the reformed gas pathway of James et al., which runs from inlet 6 to outlet 25 partially surrounds catalyst bed 22, for example at its upper surface. The Examiner also hypothesizes that one could argue that the reformed gas pathway does completely surround catalyst bed 22 of James et al., since the reformed gas inherently flows through the interstices of the catalyst bed 22 within the annular region of the reactor and therefore encompasses the catalyst bed 22. These rejections are again respectfully but strenuously traversed for the reasons set forth in the previous response and the following additional arguments set forth below.

While not necessarily agreeing with the Examiner's rejections and the arguments in support thereof, Applicants have cancelled claim 9 and amended claims 1 and 21 to recite that the reformed gas pathway at least partially surrounds an outer periphery of the catalyst bed. Thus, the claims now read on the embodiment of Fig. 3 of the present application, and not Fig. 4 where the reformed gas pathway passes by an inner surface or inner periphery of the catalyst bed. Therefore, the claims do not even arguably read upon Fig. 1 of James et al., where the reformed gas pathway passes through catalyst bed 10 which is on an inner side or inner periphery of the catalyst bed 22. Moreover, the present claims do not read on the Examiner's more strained interpretations of James et al, because the upper surface of catalyst bed 22 of James et al. is not the outer periphery of the catalyst bed.

Furthermore, neither this interpretation of James et al. nor the interpretation of the reformed gas stream flowing through the interstices of the catalyst bed 22 conforms to the remainder of claims 1 and 21 of the present application. Thus, even where the reformed gas stream of James et al. enters the top of the catalyst bed 22, it does not do so in such a manner as to heat the downstream side of the catalyst bed by the reformed gas before passing through the cooler (claim 1) or in such a manner that the reformed gas is cooled in the reformed gas pathway by the catalyst bed before passing through the cooler (claim 21). Therefore, by any interpretation of James et al., it does not meet the presently claimed "means for heating a downstream side of the catalyst bed" in either claim 1 or claim 21. Accordingly, the rejections are improper and should be withdrawn.

In view of the above Amendments and Remarks, it is submitted that all of the claims in the application patentably distinguish over the prior art of record. Reconsideration and an early Notice of Allowance are respectfully solicited.

Respectfully submitted,

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(Date)

By:

William W. Schwarze  
**WILLIAM W. SCHWARZE**

Registration No. 25,918

**AKIN GUMP STRAUSS HAUER & FELD LLP**

One Commerce Square

2005 Market Street, Suite 2200

Philadelphia, PA 19103-7013

Telephone: 215-965-1200

**Direct Dial: 215-965-1270**

Facsimile: 215-965-1210

E-Mail: [wschwarze@akingump.com](mailto:wschwarze@akingump.com)

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